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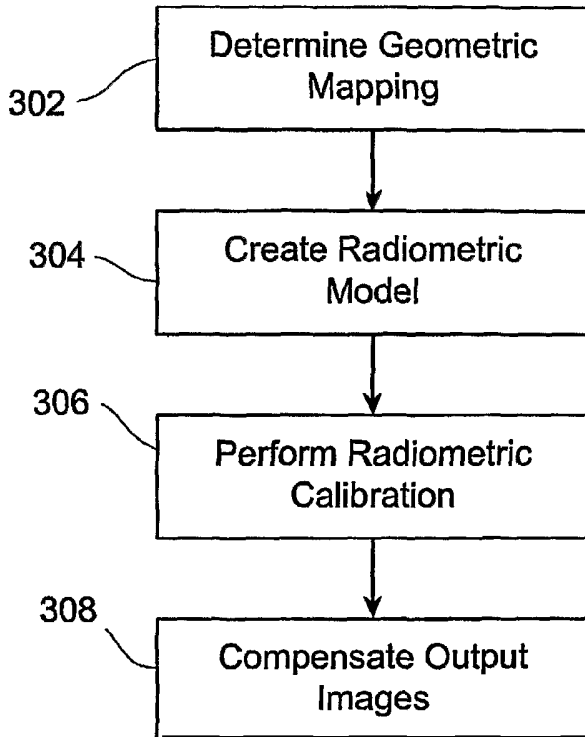
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(54) Title: METHODS AND SYSTEMS FOR COMPENSATING AN IMAGE PROJECTED ONTO A SURFACE HAVING SPATIALLY VARYING PHOTOMETRIC PROPERTIES



(57) Abstract: Methods and systems are provided for displaying images onto an arbitrary surface, using a projector, such that the quality of the images is preserved despite surface imperfections or color variations. Methods and systems are also provided for controlling the appearance of a projection surface. Various embodiments use a detailed radiometric model and a calibration method to determine the pixel values required to be projected by a projector in order for a camera to observe a desired image. Other embodiments use a compensation algorithm that uses a feedback approach to provide the desired image compensation. Geometric mapping may be used to establish a correspondence between points in the images to be displayed by the projector and the corresponding points in the images that are captured by the camera.

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A. CLASSIFICATION OF SUBJECT MATTER

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B. FIELDS SEARCHED

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 US-PGPUB, USPAT, EPO, JPO, DERWENT

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0122044 A1 (DEERING) Figs. 12, 15, pages 2-3, 16-18.	1-8, 10-36, 38-47
X	US 6,310,650 B1 (JOHNSON et al.) column 3, lines 17-33	9, 37

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* Special categories of cited documents:	"T"
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